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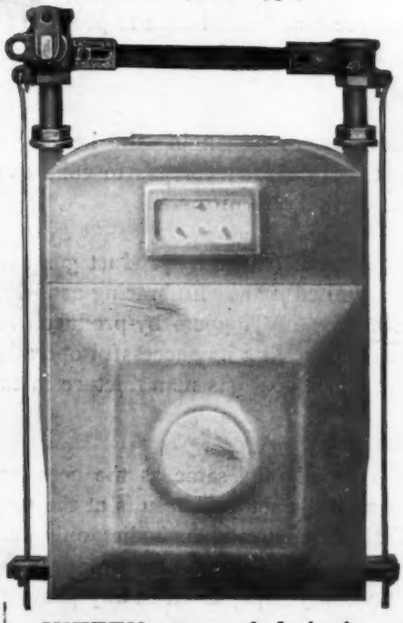
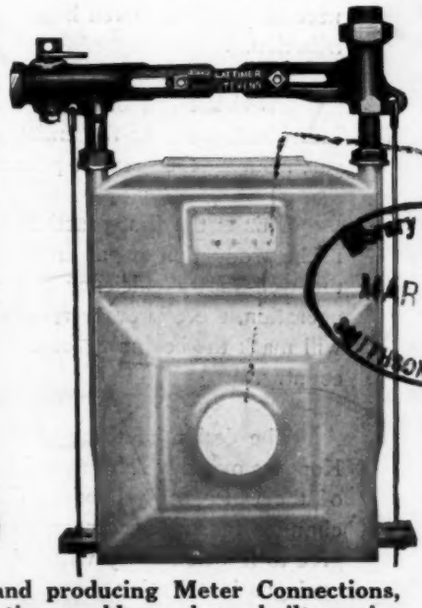
No. 45 Meter Connection with shelf (New Type).



No. 302 Connection with shelf—(Note red brass cock wing lock built into inlet end.)



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Koppers Small Gas Oven Plant at Battle Creek, Mich.

The Koppers Company has received a contract from the Battle Creek Gas Company, Battle Creek, Michigan, covering the erection of a coal gas plant to consist of eleven by-product gas ovens of Koppers new design and one Koppers gas producer, equipped with waste heat boiler. The ovens will be 13½" wide and have a capacity of approximately 6¾ tons per charge. Based on a coking speed of twelve hours, the plant will have a capacity of 1,500,000 cu. ft. of gas per day when heated with producer gas.

The producer will utilize the breeze and small coke to produce the necessary gas for oven heating, releasing all of the coal gas for distribution.

Provision has been made for instantly changing the heating of individual ovens or the entire plant from producer gas to coke oven gas, insuring the greatest possible flexibility.

This is the first practical application of the by-product gas oven to the production of gas on such a limited scale. Embracing as it does the well-known efficiency and economy of Koppers by-product oven operation, there is every reason to believe that its successful operation will mark the beginning of a new era in coal gas manufacture in this country.

The design of these ovens is exactly the same as the new type Koppers ovens which have given such phenomenal results at the plant of the Chicago By-Product Coke Company and embodies only such changes in size necessary to adapt it to the smaller capacity and give to it a flexibility which is probably unequalled in any previous coal gas installation.

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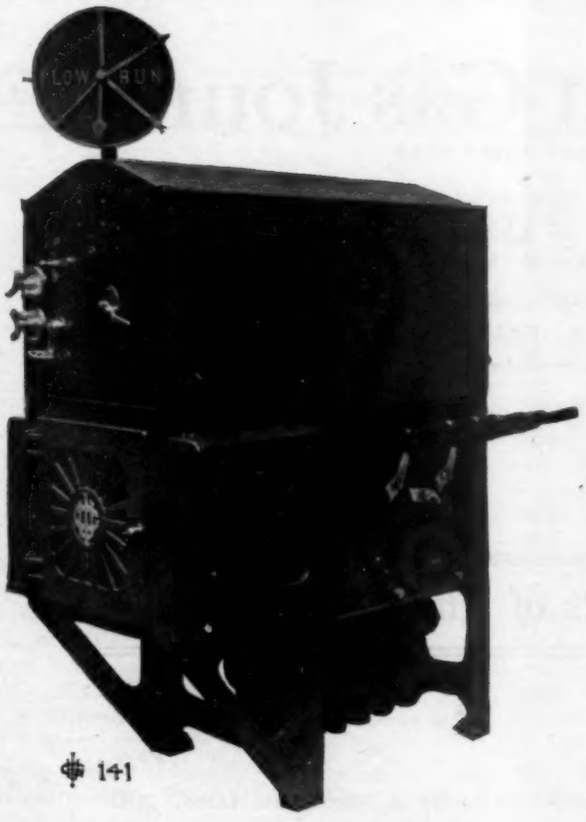

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American Gas Journal

SIXTY-THIRD YEAR

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The Gas Industry in England

Part III.—Efficiency and Economy in Operation

By H. BLACKBURN HARTE, (Staff Correspondent)

London, England.—One thing upon which our English cousins in the gas industry pride themselves particularly is the efficiency and economy they have attained in the operation of their plants.

A previous article of this series showed how the regulating legislation imposed upon the majority of English gas companies requires that before they can make any increase in their dividends they must first decrease charges to the consumer, thus making it absolutely essential for a company to increase its profits out of economies effected in operation, and not by merely raising the rates at which it sells gas. How these economies are accomplished is the subject of the present article.

There is no better example of a modern and efficient gas plant in the British Isles than the Beckton Works of the Gas Light and Coke Company, which was visited by the writer in company of engineers of the gas corporation. This plant is the largest in the British Empire, and is ideally situated on the Thames a few miles from London where coal is brought direct by sea and up the river to the plant receiving piers on the company's own coal ships. This location also facilitates and cheapens shipment of by-products to other parts of Great Britain, to the European Continent, and elsewhere, as ships are loaded right at the plant eliminating rail trans-shipment and extra loading and unloading.

The area of the huge Beckton works employed for gas making comprises some 300 acres. The total production capacity of the plant is 85,000,000 cubic feet per day, of which 27,000,000 cubic feet are water gas, and the balance coal gas. In 1921 the total production of the eight gas-making stations of the company was 33,444,000,000 cubic feet, of which 15,785,000,000, or practically half, was produced at Beckton plant alone.

Gas has been manufactured at Beckton for more than fifty years, the first operations having commenced in 1870. Expansion and improvements have taken place in all that time, the progressive management never hesitating to adopt new ideas of a sound nature toward increasing efficiency, so that today little of the earlier Beckton works stands as originally built. Contemplating still greater demands to be made upon it in the future the company has about 175 acres of additional property adjoining the Beckton site, into which the plant may still further be enlarged when necessary.

The plant has a dock frontage on the Thames of some 2,500 feet. Coal is brought from Newcastle, a sea and river trip of about 350 miles, by a fleet of eleven specially designed self-trimming coal ships owned by the company. This has been an economy of enormous advantage to the company, insuring the cheapest possible access to the vast quantities of coal used, saving not only the high costs of rail shipment, but also cutting the cost of water shipment far below what would be charged on ships not operated by the company. There are two "T" shaped piers extending some 400 feet into the river, and standing at a level about 20 feet above the ground of the works. One pier is used for the loading of ships and barges with coke, pitch, sulphate of ammonia, and other by-products of the plant in which the company does a large business in markets both at home and abroad.

The second pier, used for coal unloading, can accommodate colliers of the largest size. Cargoes are cleared with great speed by 12 hydraulic cranes worked at 750 pounds pressure. Fitted with 1 ton grabs, and derricking jibs, each of these cranes handles from the hold of the ship to the coal-car on plant railroad, an average of 50 tons per hour. The total capacity of the pier, with three ship berths working, is about 12,000 tons per day. The maximum quantity of coal unloaded during a single year was 1,528,000 tons. This easy access to marine shipment has proved useful during times of emergency. During the recent British coal strike ships came direct from the United States and up the river to the plant, discharging their cargoes with the least possible delay and expense. Had the railroad workers gone on strike in sympathy with the miners, as was for some time thought likely, Beckton plant would have still been able to receive American coal and continue operation.

Use 40 Locomotives Within Works

The coal wagons into which the cargoes are unloaded are of about five tons capacity each, and fitted with bottom discharging doors. Forty locomotives, 1,400 wagons and 60 miles of railroad track are employed in distributing the coal to the various parts of the plant, and bringing the by-products to the piers for shipment. The plant railroad is equipped with a block system of control. The Beckton pier

also receives coal for others of the company's plants, situated on parts of the river where the colliers cannot moor, this coal being trans-shipped in barges of light draft.

There are 14 retort houses on Beckton plant, to which the works' elevated railroad conveys the coal direct from the receiving pier. The ground space under the viaducts is used for reserve coal storage. Each retort house is practically a complete gas works in itself, having its own exhausting, condensing, purifying and measuring equipments.

One of the Fleet of Specially Designed Coal Steamers Operated by the Company

Placed end to end these retort houses would extend nearly one and one-half miles. They contain 4,146 horizontal through retorts all of 20 feet length except in two houses in which they are of 23 feet length. The two largest and newest retort houses are each 550 feet long, and contain 44 settings of 10 retorts each.

Throughout the plant manual labor has been supplanted as far as possible by the most improved types of machinery, and the company engineers are constantly on the lookout for further improvements.

With this object in view, three of the Staff were sent on a lengthy visit of inspection to the principal cities of America and Canada. These engineers are enthusiastic in their praise of the reception accorded them.

In four of the houses charging and discharging are performed in one operation by electrically driven stoking machines. In the other houses all stoking and discharging is done by machinery also, but by compressed air and hydraulic charging machines and pusher discharges, the two operations being performed separately. These latter are similar to the machines in use in the Paris gas works, as described in the "American Gas Journal" in a previous issue. But the electric machines which combine the operations reach about the maximum in efficiency and economy.

Most of the handling of coke is also done mechanically. In the plant's most modern retort house mechanical transporters transfer the coke from the retorts to a reinforced concrete coke bench, where it is quenched and from which it is moved by telpher to the coke hoppers, and thence loaded by gravity into cars for shipment. Figure II is a diagram of this house, showing how each step from the unloading of the coal from the cars on the charging side to the final loading of the coke into cars for conveyance to market is performed mechanically, leaving very little to be done manually. (See also Figure III, photograph of this type of transporter.) The chief duty of the men is simply the shifting of various levers to control the machinery. In other houses

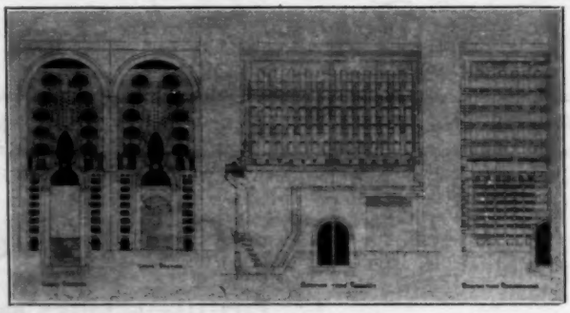


Fig 1—Diagram of Type of Coke Oven in Use by the Company

the coke is handled mechanically in a different fashion, the installations consisting of hot coke conveyors whereon the quenching is carried out, supplemented by inclined and distributing conveyors to the coke hoppers.

All of the retorts are of the horizontal type. Condensers are mainly of the horizontal type, air cooled, with a number of water cooled tubular condensers worked in series on certain gas streams.

Waste Guarded Against

Waste, of anything which can possibly be used in any way, is absolutely not permitted. With economy as the watchword, this company has set about manufacturing and selling everything it can, as well as the greatest amount of gas it can. Like the pork packers of Chicago, of whom it is said they use every part of the pig "except the squeal," it may be said that this company finds a use for everything in the manufacture of gas except the smell. It manufactures a formidable list of by-products, some of the principal ones of which are road tar, sulphuric acid, sulphate of ammonia, liquid and anhydrous ammonia, motor benzol, carbolic acids, creosote and oils, naphthalene, beta naphthol, salicylic acid, anthracene, pitch, prussian blue, sodium cyanide and ferrocyanide.

Extraction of cyanogen from the gas is done by rotary washers by means of ferrous sulphate solution, a portion of the ammonia being simultaneously removed. Likewise the recovery of the balance of the ammonia is performed in rotary washers. Sulphuretted hydrogen is removed by sixteen sets of purifiers, the purifying material being oxide of iron.

In addition to the coal gas plant described in the preceding, there is a carburetted water gas plant, which with two blue gas sets, has a total daily productive capacity of 27,000,000 cubic feet.

To facilitate clinkering, because of their large size, the sets have been built each to consist of twin generators followed by carburettor and superheater for the gasification of oil. Each set can produce more than 3,000,000 cubic feet per day. The two blue gas sets are also built with twin generators, followed by waste heat boilers.

All valves are operated by hydraulic power controlled by hand levers. The working cycles of all sets are synchronized by electric clocks controlled by a master clock.

Use Two 48-Inch Mains

The gas is taken from this plant to London in two 48-inch diameter mains, each some ten miles long. Pumping has to be resorted to in order to force the gas in sufficient volume against the friction of these long lines of main. These mains in connection with smaller lines distribute the gas to stations in various parts of London, where it is stored in gas holders for future local distribution. There are two relief holders on the Beckton water gas plant, each with a capacity of 1,000,000 cubic feet, used in connection with the inlet of exhausters. After being separately metered and tested the carburetted water gas is mixed with the coal gas on the inlet of holders.

Pumping is performed by four pairs of exhausters with a combined capacity of 2,800,000 cubic feet per hour, two sets of turbo blowers, each of which has a capacity of 1,500,000 cubic feet per hour, and two additional pairs of exhausters with a combined capacity of 1,450,000 cubic feet per hour. As gas is pumped into the 48-inch mains it receives anti-naphthalene treatment by petroleum oil, vaporized by steam heat or atomized by compressed gas.

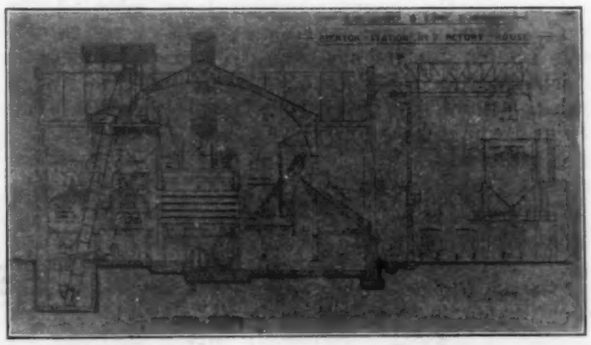


Fig. 2—Diagram of One of the Retort Houses Showing Successive Steps Taken in Manufacture

Electric power provided for the operation of the stoking machines and other electrical apparatus throughout the plant is generated on the premises. It is interesting to note that the electric generators are driven by direct coupled gas engines.

Plant Is Self-Contained

In all other respects the plant is equipped to perform practically any work that may be required, without any help from outside sources. There are extensive modern repair workshops, including boiler shop, which is equipped with pneumatic tools, acetylene burning and welding plant, coppersmiths' and tinsmiths' shops, erecting and machine shops, locomotive shop, a small iron foundry, pattern shop, blacksmith's shop, electrical shop, drafting rooms, laboratories, and so forth. There is a water filtration plant capable of taking 4,000,000 gallons a day direct from the Thames and rendering it fit for general works purposes.

Copious accommodations have been provided in the way of dining rooms, recreational facilities, and hospital facilities for employees. Eighty acres have been allotted by the company for recreation purposes.

The great attention paid to efficiency at Beckton plant is illustrated by the chart shown in Figure IV. A chart of this kind hangs in each of the fourteen retort houses. There are 50 points for which marks, good or bad, are given on these efficiency charts. Daily inspections of each house are made by W. B. Leech, Engineer of the Station; E. J. Hutchence, Deputy Engineer, and their assistants, and the charts marked, black marks for points lost in efficiency, white for points gained.

"The interest in these charts is intense," said Mr. Leech, "not only among the men in charge of the houses, but the men in the ranks of each house as well. We find that all our men have a spirit which makes them rejoice if their house rises in efficiency, and feel keenly any black marks which are placed on the charts of their houses."

This idea is carried through further by similar checking up on all the plants of the company, and reports from each plant go in to the Chief Engineer, Thomas Hardie, in the company's central office, for comparison with each other.

Efficiency is Typical

While the development of efficiency and economy in Beckton plant is undoubtedly superior to that in most other English gas plants, it is at the same time

Daylight Work Shop Equipped to Meet Any Emergency

typical of British gas practice throughout the industry. That is, the other London companies, and all important gas enterprises throughout the kingdom, are likewise bending every effort to these ends. The idea largely held in America that the British are ultra-conservative, and that this conservatism has blocked their way to adopting improvements in their industries is a mistaken one. True, they are conservative, but when they are convinced that a change or a new idea will improve things they are not so slow to put it into effect as we are inclined to imagine.

M. O. Made Startling Advances

A few more facts follow, to conclude our survey of the high spots regarding the British gas industry.

Municipal ownership of gas undertakings has made some rather startling advances in Great Britain. Figures of the British National Gas Council show that there are today 246 municipal gas undertakings, and 954 private companies in the British Isles; thus the municipalities own a total of almost one-fourth the total number. But even more startling is the fact that a large proportion of the bigger enterprises are municipally owned, so that the total average annual output of the private companies is only a little more than twice as much as that of the municipal enterprises. The private companies manufacture approximately 168,000,000,000 cubic feet per year, and the municipalities about 70,000,000,000. The output of the three principal London companies represents fully one-fifth of the entire United Kingdom output; therefore eliminating the metropolis the proportion between private and municipal enterprises for the rest of the country is brought into even sharper relief.

Fig. 3—Type of Coke Conveyor

The division along lines of private and municipal ownership, has a certain geographical and a certain political aspect. Geographically, the south of England is supplied practically entirely by private companies; in the north municipal ownership dominates. Scotland is almost entirely municipal—in Scotland there are only four statutory private companies operating, and these supply only about 2½ per cent of the gas used in that country.

The political aspect is closely related to this geographical division in England proper. That is, the south, where the private companies predominate, is composed chiefly of commercial centers like London, and the seaports, and also the chief farming sections of the country. Naturally in territory thus populated the conservative forces are strongest, and private enterprise is encouraged. In the north, on the other hand, where municipal ownership leads, are the great industrial centers, like Birmingham, second largest city in England and center of the iron and steel industry; Manchester, and other such great manufacturing centers, and the towns of the coal mining district. In cities of this kind the labor element predominates politically, they are the strongholds of the British labor party. Socialism and radicalism, which are much more pronounced all over England than in America, flourish in this district. Public ownership of utilities follows here then as a natural consequence. This social-political aspect is further emphasized by the fact that certain cities in the northern geographical section, surrounded by all these municipal enterprises, have retained private gas companies. Prominent among these are Liverpool and Hull, which both being great seaports are much more under the influence of the conservative people of commercial and business life and better able to combat the radical labor element than their neighbors, and Sheffield, a manufacturing city in which the labor politicians are notably less active, or at least less successful in leading the labor inhabitants than is the case in most other parts of England.

Little Opposition to Municipal Ownership

However, there is not a great deal of opposition to municipal ownership in Britain. The private companies are not conducting any campaign against it, they do not seem seriously concerned over the large sections of the country which have adopted the municipal form of management, and they apparently have no fear of its spreading into the districts in which they are established. The managements of both the municipal enterprises and the private companies are members of the National Gas Council, and co-operate in many matters of general national interest to the industry as a whole.

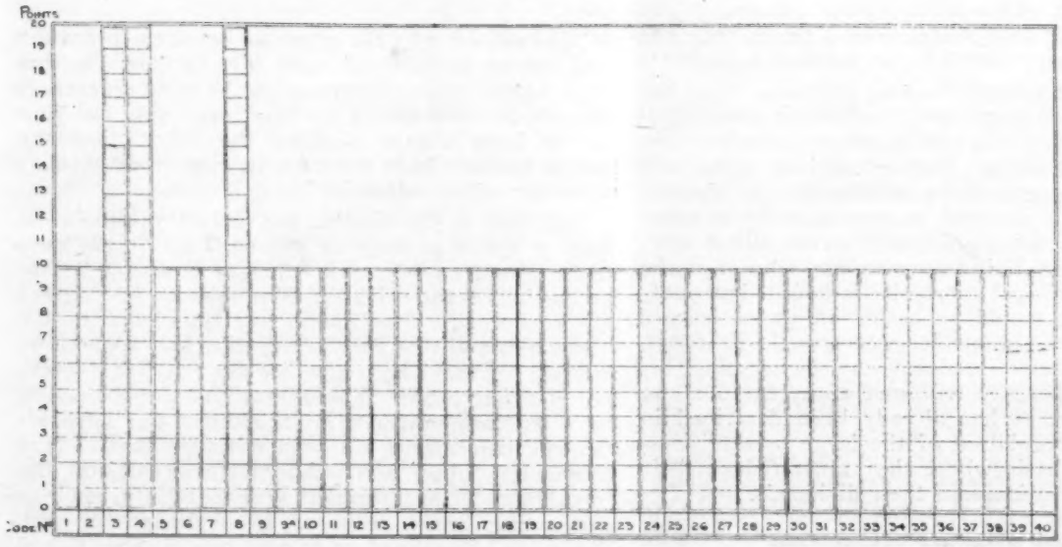
A study of some figures on the rates charged the consumer for gas, however, proves that after all private ownership in England, as elsewhere, works out better for the public. Before comparing these rates, it should first be recollected that the private companies are acknowledgedly in the business for profit, and most of them are successful, making what is considered a fair profit both from the standpoint of shareholders and the consumer. On the other hand, the municipal enterprises in England as in other cities and countries where they are in existence, declare that they are operated without profit, and are in operation to sell to the citizen at cost; although in many cases these undertakings are made heavily to subsidize the local budgets for general municipal purposes.

With this in mind, observe that the rate for gas per 1,000 cubic feet (converting from the thermal basis upon which gas is now being sold in England) is 4 shillings 2 pence in London, and 5 shillings in Liverpool, which are the two largest cities with private companies. But in Birmingham the rate is 5 shilling 3 pence, and in Edinburgh it is 5 shillings 4 pence—these are among the largest cities under municipal operation.

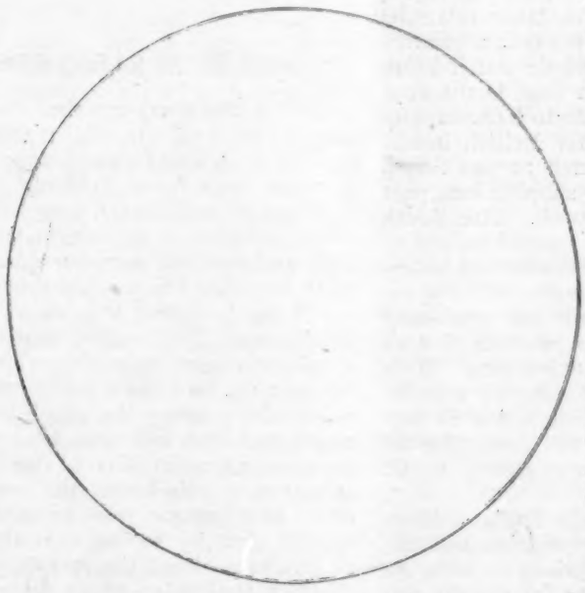
Thus in London the price is 1 shilling 1 pence or practically $0.26 less than in Birmingham, and 1 shilling 2 pence less than in Edinburgh or about $0.28. It might be argued that the huge volume production in a city like London enables economies not possible in merely fairly large cities like Birmingham and Edinburgh. But then there is Liverpool, smaller than either Birmingham or Edinburgh, with a pri-

REPORT ON RETORT HOUSE Nº

POINTS AWARDED UNDER EACH CODE



TOTAL POINTS GAINED



Age in days

Note

10 points are allowed for each Code number, with the exception of Codes 3, 4, & 8, which in view of their importance are given 20 points.

Black = Points lost White = Points gained

Red = Bonus for increased throughput

EXPLANATION OF CODE NUMBERS FOR INSPECTION OF RETORT HOUSES AT BECKTON

Nº	— DESCRIPTION —
1	— LEAKY MOUTHPIECES & LIDS
2	— LEAKY ASCENSION PIPES
3	— UNBURNT COKES IN CHARGE
4	— DEAD ENDS IN CHARGE
5	— THROUGHPUT PER RETORT AND DAY
6	— LIDS OPEN IN EXCESS OF REQUIREMENTS
7	— STOPPED DIPES
8	— LEAKS FROM SHAFTS UNDER EXTRA PRESSURE
9	— AVERAGE TEMPERATURE OF COMBUSTION CHAMBERS
9A	— VARIATIONS IN TEMP. OF INDIVIDUAL SETTINGS ABOVE OR BELOW STANDARD AVERAGE TEMPERATURE
10	— TEMPERATURE OF WASTE GASES MEASURED ABOVE DAMPER OF SETTING
11	— PROPERLY CLOSED GENERATOR FEEDER DOORS
12	— WATER SUPPLY TO GENERATORS
13	— CONDITION OF GENERATOR DRIP-PLATES
14	— CONDITION OF AIR CONTROL OF SETTINGS
15	— ANALYSIS OF PAN MUCK
16	— ANALYSIS OF WASTE GASES
17	— ANALYSIS OF PRODUCER GASES
18	— TEMPERATURE OF RETORTS STANDING FOR SCURFING
19	— THICK TAR IN HYDRAULICS
20	— AMM. VAPOUR LEAKS IN HOUSE
21	— AMM. LIQUOR WASTE AT CIRCULATING PUMPS
22	— FLUES
23	— FENCING OF MACHINERY
24	— NEATNESS OF STAGE
25	— NEATNESS OF COKE MOLD
26	— NEATNESS OF COKE INCLINE & HOPPER
27	— NEATNESS OF LIDS & SETTINGS
28	— NEATNESS OF CHARGING AND DRAWING MACHINES
29	— LUBRICATION OF MACHINES
30	— LEAKY VALVES
31	— LOBBIES & BATHROOM
32	— FIRES IN COKE HOPPERS
33	— BREAKDOWNS — HOT COKE CHAINS
34	— BREAKDOWNS — INCLINED CHAINS
35	— BREAKDOWNS — WORKING INTO BOILER BOX
36	— BREAKDOWNS — CHARGING & DISCHARGING MACHINERY
37	— LEAKY RETORTS
38	— CLEANING OF MOUTHS & COKE MOLD
39	— CONDITION OF COKE & BREEZE PAVEMENTS

vate gas company selling gas at 3 pence or about $.06 less than Birmingham, and 4 pence or about $0.08 less than Edinburgh. The companies in London and Liverpool are making good profits. The municipal organizations in Birmingham and Edinburgh supposedly are not making any profit. Then how is it the two largest cities with private ownership can have gas sold at lower rates with a profit, than the cities with public ownership can without a profit?

We know the answer, because the same thing has been found in a comparison of private and municipal enterprises in America, and in other countries. Obviously, the municipal gas enterprises either are not so well managed as the private ones, or else the profits are being diverted to cover deficits in other departments of the municipalities. In either case, it is just as bad. It is the consumer who pays the bill. If the municipal enterprise is honest but poorly managed, he would be better off under private ownership. If the municipal enterprise is dishonest, he would be better off under private ownership. This would seem especially true and apparent to all in England, where, as has already been described in these articles, regulation of the large private companies is on a basis where they must reduce their prices in order to increase their dividends.

Labor Relations Satisfactory

Finally, we come to relations between British gas enterprises and their labor forces. In general, according to S. S. Ogilvie, one of the joint managers of the Federation of Gas Employers, labor relations are on a very satisfactory basis. This is in a country where labor unions are on the whole much more powerful and much more arrogant than is the case in America. The gas industry seems to have happily avoided the troubles of many other British industries. With certain exceptions, such as the South Metropolitan Gas Company which supplies one part of London, the unions are dealt with. The South Metropolitan Company follows a special policy of its own, does not belong to the associations to which most of the other large gas enterprises do, it operates a strictly open shop, and while not excluding members of labor unions from its payrolls it does refuse to deal with them as organizations. It is the one large company in England offering a striking example of such individualist policy, and F. McLeod, General Manager, declares the pursuance of this policy has been generally satisfactory to all concerned.

Most other large gas enterprises in England, however, do belong to their own co-operative associations, and do treat with the labor unions as such. As the unions of gas workers have thus far usually followed moderate sane policies, disputes have been amicably settled between companies and men, and the companies have placed no obstacles in the way of the existence of these unions. The co-partnership schemes, already described, which are so common in the industry, have been of great advantage in maintaining good relations with labor. The Gas Employers Federation has fixed the minimum wages and conditions of service nationally, on a sliding scale which may be readjusted every three months according to any increases or reductions in the cost of living which may occur, and readjustments from this national basis to meet local conditions have been made by the district councils of the employers and of the men. In addition to the co-partnership bonuses many companies have provided for pensions, super-annuation, and extensive recreational facilities.

"One reason why the relations between companies and unions is cordial," says Mr. Ogilvie, "is that even where at times there might be wide differences of opinion on disputed matters, each side has thus far at least always credited the other's honesty, which has not been the case in similar disputes in so many other industries."

And that is the British gas industry Utopia—at least it seems as near an approach to Utopia as is to be found anywhere in the gas business, so far as the important private gas companies in England are concerned. The public has confidence in the companies and that they are getting gas at the lowest fair prices. The companies are enabled to operate at a fair profit. The unions and the companies have mutual confidence in each other, and have arranged their affairs on a satisfactory basis. And companies, labor, and public all can unite in the furtherance of programs of general benefit, such as combatting health menaces from the smoke evil, by the use of gas in place of coal, and in other things where gas can play an important part in the well-being of all people.

ARE YOUR SALES EFFORTS JERKY?

Before the good weather comes have a check-up on your sales efforts. See if they run along smoothly or if they jerk and almost upset things at times, and if again they seem suddenly to die. Look at this little graph, look at the heavy line representing sales effort and look at the others, too. Then get out your data and plot one for your gas sales and one on top of it for sales effort. Then look at them again and see if the contours are not very near those of this little graph. You realize that to be ideal these lines would be ascending curves. That is, gas sales would be ever up, and sales effort would be on the same plane. Now study the graph and your curve a little more, and you will note that where sales effort is greatest, along in March, April, May and June, gas sales are a little below the average, and that when effort eases up gas sales seem to increase. You may explain that by saying that the upward movement of gas sales from the month of April on is due to the fact that sales effort from March to April has sold enough new appliances and created enough new customers to keep gas sales ascending until the warm months come and the natural load is taken on and maintained until September or October. Be it as it may, if you have been thinking about sales effort and its relation to gas sales, by now you have the point, and that is if gas sales are to show an upward trend sales effort must be one continuous effort, one steady pull. Think it over and when times seem off put on more pressure and even up the curve by intensifying sales effort.

Utilities Bill Introduced in New York State Legislature

EMBODYING GOV. SMITH'S VIEWS

Governor Smith's own feature bill, which is supposed to embody a solution of the home rule regulation of public utilities and afford a panacea for all local civil ills, is embodied in a measure introduced in the New York State Legislature last week. This measure has been drawn in accordance with recommendations contained in the Governor's initial message to the Legislature and confers almost mandatory jurisdiction upon all cities of the State to regulate their own public utilities—mandatory that they assume such responsibility of jurisdiction, unless by a resolution of its governing board approved by the mayor, such city elect to have the public utilities within its city regulated by the State Public Service Commission.

The newly created bodies are to be called "city public utilities commissions." Christened with this official title, their term of office and compensation is left to the judgment of the governing board of each city which may, if it see fit, require an existing body or officer within such city, not necessarily an appropriate body or officer, but if they so designated it the department of health or the head of the street cleaning department, to act as such city utilities commission.

This is the bill which has been under discussion for the past two weeks and has been all ready for introduction a couple of times, but each time has been withdrawn for repairs, once at the suggestion of corporation counsels from the up-state cities.

The notable feature of the bill is, it allows local regulation of all of that portion of a utility lying wholly within a city, except that the power is reserved to the State Public Service Commission of establishing and enforcing through rates or charges for services rendered whether alone or in conjunction with any other corporation by any utility not wholly within a city; to prescribe a uniform system of accounts; to require the filing of schedules and tariffs; or to approve the issuance of stocks or bonds by all public utilities.

Chance for Confusion

The political possibilities of the application of the proposed law are many. For instance, if a city has a Democratic mayor and a Republican common council, the council in that city would be the governing board. Should the common council pass a resolution stating that it did not wish to function under the law and the mayor were to veto it, unless the council were able to pass it over his veto, the governing board would be placed in the position of being compelled to assume the enforcement of a law to which it is opposed. This would forthwith throw the entire question into the local municipal election to be held this fall, and that is one of the things that is almost certain to happen in almost every upstate city. Instead of the problem being solved, there is quite a bit of possibility that in many cities there will be absolutely no regulation at all.

Text of the Bill

AN ACT to amend the public service commission law, in relation to the regulation and control of public utilities by cities, authorizing the establishment of city public utilities commissions and transferring to such commissions the powers, duties and jurisdiction of the public service commission.

The People of the State, represented in Senate and Assembly, do enact as follows:

Section 1. Subdivision one of section two of chapter four hundred and eighty of the laws of nineteen hundred and ten, entitled "An act in relation to the public service commission and the transit commission, constituting chapter forty-eight of the consolidated laws," as last amended to read as follows:

1. The term "commission," when used in this chapter, means either the *state* public service commission or (the transit commission hereby created) *a city public utility commission,* which by the terms of this chapter is vested with the power or charged with the duty in question.

§2. Subdivision two of section two of such chapter, as last amended by chapter one hundred and thirty-four of the laws of nineteen hundred and twenty-one, is hereby amended to read as follows:

2. The term "commissioner," when used in this chapter, means [one of the] *a* member[s] of [either] the *state* public service commission [or the transit commission], *or a member of a city public utility commission,* as the jurisdiction, power or duty, or the context, may indicate.

§3. Such chapter is hereby amended by inserting therein a new article, to follow article one, to be article one-a, to read as follows:

ARTICLE 1-A.
Control by Cities of Public Utilities

Section 24-a. Power of cities to regulate public utilities.
24-b. City public utilities commissions.
24-c. Transfer of jurisdiction.
24-d. Continuation of jurisdiction; suits and proceedings.
24-e. Commission orders to remain in effect until superseded.
24-f. Certified copies of records.
24-g. City may elect to be subject to state commission.

24-h. Proceedings on election of city to be subject to state commission.
24-i. Definitions.

§24a. POWER OF CITIES TO REGULATE PUBLIC UTILITIES. Every city of the state is hereby vested with the power, duty and jurisdiction, as the agent of the state, to regulate and control, except as herein otherwise provided, public utilities, to the extent that the lines, routes, tracks, plants, equipment, property, rates, charges, operation, service, facilities or practices of such public utilities are located, established, maintained or observed within such city; and to the persons or corporations owning, operating or leasing such public utilities; except that if any rate or charge for service by any such public utility within such city is specified in any statute, contract, franchise or grant, such rate or charge shall only be increased by and with the consent and approval of the board of estimate and apportionment, council, or other analagous local authority of such city having the power to grant franchises and give consent for the use of the public streets and highways of such city.

§24-b. CITY PUBLIC UTILITIES COMMISSIONS. 1. In every city there shall be either a public utilities commission established by the governing board, with such membership and for such terms of office as the governing board may from time to time determine, or the governing board may prescribe that an existing officer, board or body shall constitute the public utilities commission of such city for the purpose of this article. Unless and until the governing board establish or constitute such a city public utilities commission, the governing board itself shall be the city public utilities commission of such city, for the purpose of this article. A city public utilities commission shall exercise all of the powers and be charged with all of the duties now or hereafter conferred upon or required of the state public service commission under this chapter or any other statute in so far as such powers and duties relate to the public utilities within the jurisdiction of such city as defined in the preceding section, and to the persons or corporations owning, leasing, controlling or operating the same, except as herein otherwise provided; but such city public utilities commission of the City of New York shall not have jurisdiction or control of such utilities, or of the persons or corporations owning, leasing, controlling or operating the same, as are by any provision of law placed under the jurisdiction or control of the department of transportation of such city.

2. In any city where the governing board shall act as the public utilities commission of such city and shall also be the local authorities in control of the streets, avenues and highways of such city, any action had or taken by such governing board granting permission to any public utility to use such streets, avenues or highways shall not require any further or separate action by such governing board acting as the public utilities commission.

§24-c. TRANSFER OF JURISDICTION. Every provision of this chapter or of any other law, general or special, which in terms or by implication confers jurisdiction, grants power, devolves duties upon, or authorizes proceedings by, the state public service commission, and every such provision which in terms or by implication applies to such state public service commission shall be deemed and held to confer like jurisdiction on, grant like power to, devolve like duties upon, authorize like proceedings by and have like application to each city public utilities commission in relation and respect to all public utilities and the persons or corporations owning, leasing, controlling or operating the same to the extent of the jurisdiction conferred by this article; in such manner and with such effect that such city public utilities commission shall to such extent have full jurisdiction and control thereof and such state public service commission to such extent be divested of all jurisdiction and control thereof. Provided, however, that the city public utilities commission shall not have nor shall the state public service commission be deprived by this article of jurisdiction and power to establish and enforce through rates or charges for service rendered, whether alone or in conjunction with any other corporation, by any utility which is not wholly within a city; to prescribe a uniform system of accounts; to require the filing of schedules and tariffs; or to approve the issuance of stocks or bonds by all public utilities within the state.

§24-d. CONTINUATION OF JURISDICTION; SUITS AND PROCEEDINGS. The several city public utilities commissions shall be deemed and held to constitute a continuation as to all matters within their respective jurisdictions of the state public service commission and not as new departments or agencies of government; and the transfer of the powers and duties to such city public utilities commissions shall not affect any action or proceeding, civil or criminal, brought by or against the state public service commission or any action or proceeding to which such state commission succeeded as a party, but such action or proceeding may be prosecuted or defended in the name of the appropriate city public utilities commission and such city public utilities commission upon application to the court, shall, in a proper case, be substituted as party thereto.

§24-e. COMMISSION ORDERS TO REMAIN IN EFFECT UNTIL SUPERSEDED. All orders of the state public service commission applicable to matters within the jurisdiction of the respective city public utilities commissions in force and effect, when such jurisdiction is originally vested, or hereafter reassumed, under this article, shall continue in force and effect and be enforced by the appropriate city public utilities commission until revoked or superseded as to such city by the order of such city public utilities commission. All orders of a city public utilities commission in relation to matters jurisdiction whereof is surrendered by such city to the state public service commission under this article shall continue in force and effect and be enforced by the state public service commission, until, revoked or superseded by it.

§24-f. CERTIFIED COPIES OF RECORDS. The state public service commission, on the request of a city public utilities commission, shall make and certify copies of any books, papers, records, contracts, maps, plans or other documents of whatever description within the jurisdiction or control of the state public service commission pertaining to matters jurisdiction whereof is conferred by this article on such city public utilities

commission and shall deliver such certified copies to such city public utilities commission. This section shall apply to matters jurisdiction whereof is originally conferred by this article, or hereafter reassumed under this article.

§24-g. CITY MAY ELECT TO BE SUBJECT TO STATE COMMISSION. The governing board of any city at any time, by resolution approved by the mayor, may prescribe that the city elect not to have or exercise the powers, duties or jurisdiction conferred or imposed on cities by the provisions of this article or to regulate by municipal authority as provided in this article public utilities. Such resolution may be limited to any or all kinds or classes of utilities within such city. If such a resolution be adopted, a copy thereof, duly certified by the appropriate municipal officer, shall be filed in the office of the secretary of state and in the office of the state public service commission, and served on each person or corporation, owning, leasing or operating a public utility affected by such change of jurisdiction, and from and after the filing thereof the public utilities so affected within such city shall be under the jurisdiction of the state public service commission and subject to the provisions of the public service commission law in the same manner and with the same effect as if this article had not been enacted. Provided, however, that any city may at any time, by the adoption of a resolution of its governing board and upon notice of three months to the state public service commission reassume in relation to any or all kinds or classes of utilities, the jurisdiction and powers surrendered pursuant to the provisions of this section.

§24-h. PROCEEDINGS ON ELECTION OF CITY TO BE SUBJECT TO STATE COMMISSION. Whenever a city shall elect not to have and exercise powers, duties or jurisdiction vested in it by this article, the city public utilities commission shall transfer to the state public service commission all books, papers, records, contracts, maps, plans and other documents of whatever description within its jurisdiction or control pertaining to matters jurisdiction whereof shall have been so surrendered; and any action or proceeding, civil or criminal, in relation to such matters, brought by or against such city public utilities commission, or in which such city public utilities commission shall have been substiuted as a party, may be prosecuted or defended in the name of the state public service commission, and the state public service commission, upon application to the court, shall, in a proper case, be substituted as a party thereto.

§24-i. DEFINITIONS. When used in this article, the term "governing board" means the board of estimate and apportionment or council of a city of the first class or the board of estimate and apportionment, if there be any, or otherwise the common council or board of aldermen of a city of the second or third class.

§4. This act shall take effect immediately.

There are at least two holes in the home rule utilities bill introduced in the New York State Legislature, each one, figuratively speaking, "large enough to drive an ice wagon through." Nothing is said in the measure about annual reports of corporations. A city takes over the regulation of a public utility; to whom does it report? The information co-ordinated from quarterly and annual reports have in the past formed the basis of experience for determination of many an important question by the Public Service Commission.

There is no centralized or co-operative relationship between the city utilities commissions and the state body. The New York Central Railroad Company requires copies of all divisional correspondence in each of its various departments to be filed in the main office of the corporation. If such procedure is good business for a public utility corporation, why is it not so for a public utilities commission? Should not copies of correspondence, orders and determinations of city commissions be filed with the state commission? Syracuse is trying to solve a gas regulatory problem or Utica a street railway tangle. Rochester has had a similar situation. The state body has the data, yet under the terms of the proposed measure, Syracuse and Utica would proceed to work out their own salvation regardless of any other experience.

The state commission has the final say as to the issue of stocks and bonds. The Albany Utilities Commission orders the United Traction Company to place all of its wires underground and the state public service commission refuses a bond issue to finance the actual construction work. Who will be responsible for the carrying into effect of the order of the local body?

Perhaps one or two other objections to the measure will develop before the bill comes up for passage.

Industrial Gas Salesmanship*

A Review of Work Being Done in New England

By C. E. PAIGE, Boston, for a Committee of the New England Association of Gas Engineers

Six men, at a recent gas meeting, said that the greatest problem in the gas industry today is that of rates, especially industrial rates. Curiously, these six men were largely identified with the production of gas, and were answering the question propounded by the Technical Section of the American Gas Association as to the six greatest problems in the industry.

Perhaps they meant it. Perhaps they meant though that the future growth of the gas business depends largely on the increase in sales of gas for industrial purposes.

Not that other prospects have been thoroughly developed. There remain great possibilities for domestic utilization. New territories can be opened, old ones improved. "Gas in the home" is our slogan and "gas in the home" will always require careful attention from everybody who is interested in the sale of gas.

*Presented at the Annual Convention of the Association.

We are coming to appreciate that business of large volumes can be had in most communities. We say "coming to appreciate." Just that. We have known that the prospect existed. We have secured some of the business. Some of it has come to us. Much remains to be done. To get the business requires us to know more about what we are doing.

We now realize in most instances that selling gas is more of a proposition than it used to be. Selling gas for industrial purposes begins to be rated as salesmanship plus science.

Training the Industrial Gas Salesman

We want to tell a little about the Industrial Gas Salesman's Course held at the Massachusetts Institute of Technology. The course was conceived to meet the demand for highly trained industrial gas salesmen.

Great corporations, making electrical equipment, offer such courses, furnish equipment and even finance them to some extent.

We have no large companies who could do this, and our effort must be co-operative. Educational work is a necessity. Much of it is being done in various sections by associations and by universities.

New England needs, particularly, information on the industrial application of gas. New England gas company executives need to realize that industrial gas salesmen from now on have to meet fully qualified scientists in heat treating. The executive must send equally capable brains if he hopes to make installations that stay sold.

We are not dealing with the question of liberal assistance in extended credit to genuine customers. Nor do we discuss that very vital feature of a lively and competent interest in the customer's service. These are obvious requisites. How many industrial gas salesmen do you know whom you consider to be stars? Is there such a man in your company?

Prospects for Large Business

The answer to these two questions, added to the fact that there are undoubted prospects for large business, was the excuse for the Salesman's Course.

We found the students hungry for information. They ate it up. They had suffered the handicap of inadequate equipment and sometimes, maybe, had to bluff a little.

Part of the curriculum prescribed visits to commercially operating installations. The students in most cases felt that this time was not well spent. The committee was quite surprised. Queer thing, fellows wouldn't be quite impressed to see working equipment. Why weren't they? Because they could see typical installations any time, but they could not get theoretical instruction and practical laboratory work except through such facilities as this course furnished.

Our course in Cambridge had several features to recommend it. The technology staff were very capable. Professor Gordon Wilkes, with the assistance of O. K. Bates, handled the instruction very ably. Professor Norton helped in every way to get the course started.

The manufacturers of industrial appliances were more than kind. They loaned us all of the equipment we required. Later many of them presented this equipment to the Tech laboratory. We have definite ideas about what should be done to furnish a working laboratory in which may be found practically all of the appliances which are likely to be needed for industrial purposes.

Look for Support

We hope to secure enough financial support to complete the necessary equipment.

This idea helps. It shows the scientific men what is being done with modern equipment. They are often consulted by persons who want heat in large volume. It links up our industrial salesmen with a scientific connection. It enhances the prestige of our industry.

We report that we consider the effort was successful and should be continued. We believe that everyone who had anything to do with the course feels the work must be carried on.

This conclusion is reached by a digest of the reports of the students, the instructors, and the men from our industry who so generously assisted by preparing and delivering lectures on various subjects.

Viewing the Problem from a New Angle

The preparation and handling of this course gives the committee an unusual opportunity to see the industrial gas problem from new angles.

Given a course of study, and a job, the industrial salesman himself needs something. He must have the backing of his management. He must have frequent contact with the executive side of the business. The manager should offer all the encouragement possible. If the salesman wants him to visit a prospect, the manager should make every effort to do it, if for no other reason than to make the salesman feel that he counts.

Must Know Process of Manufacture

The industrial gas salesman must know something of the processes of manufacture, distribution and other features of the business. Above all, he should know the possibilities of his gas in various applications. He must know how to appraise the claims of salesmen selling competitive fuels. He must study his customer, the man, and he must study his needs. Such a man should establish a reputation with his prospects for reliability and fairness. If he thinks the customer should use some other equipment he will lose little to say so. He will be known as one who thinks in the interest of his customer, and thus gain a great deal.

No installation should be sold unless the salesman believes it to be the best thing for the customer. You must believe in yourself.

As the Journal Views It

LIGHT IN THE DARKNESS

It's the result that counts in almost all things. The road by which we arrive at our destination is often of far less importance than is the time or ease of travel. The delicacy and tastiness of the finished pie are often more appealing than is the nature of the ingredients which went towards its making. And so it is with industrial manufactures.

If the springs on our automobile break readily and need replacing, what do we care whether they were made of steel or iron? Further than that, if of steel, how much are we, or, indeed the manufacturer, rewarded by the knowledge that the cheapest possible fuel was used in their hardening? And be the hardening process good or bad, just what is the value of the fuel, whether coal, oil or gas? And what is a cheap fuel, anyway?

It is true that the process of converting coal into gas is not cheap. It is also true that the cost to the consumer of fuel in a gaseous form may work out greater in some ways than that of coal and oil from which it is derived. But, why make comparisons of these factors in the fuels alone, when in reality we should compare the relative accomplishments o the two—or, if we include oil,—the three?

The industrial user of fuel is not going to assimilate his fuel. He will scarcely ever use it in a direct manner, but rather indirectly by the aid of an annealing furnace or a forge, an oven or some other equipment. And he is out after results; the ultimate unit cost and quality of finished product is megaphonic speech that he cannot fail to understand and appreciate.

So what on earth is the use of comparing only cubic feet of gas with gallons of oil or tons of coal or coke? What do a thousand cubic feet of gas look like? How many of us can visualize one thousand cubic feet of gas? How many can visualize the calorific value of a thousand cubic feet of gas having 575 B. T. U., let us say, to the cubic foot? And if we, as gas men, have any difficulty, how much more will the industrial consumer have?

No, it is the mode of utilization of any fuel which is the determining factor. To use any fuel to best advantage, we need to burn it rightly and to have our appliances and equipment of the highest practical efficiency. This is not hard to understand, for there may be 12,000 B. T. U. in a pound of coal costing three-quarters of a cent, and yet but 15 per cent of this quantity of heat may be realized through inefficient utilization, due to lack of knowledge in proper equipment design.

On the other hand, we may have only 8,000 B. T. U. in one pound of gas costing twice the price of the coal—one and one-half cents. Yet, if we utilize not 15 per cent of it, but 50 per cent which, as we all know, is no exaggeration, the gas will be the cheaper fuel. Such an increase in efficiency is attainable, due to our present day knowledge of what constitutes an efficient gas appliance. And this constitutes but one factor in favor of gas.

Moreover, what applies to coal will apply to oil in considerable measure also. The tendency, however, in gas cost may be downward, but the tendency in the price of oil will undoubtedly be upward. Indeed, whereas gas sells at a price and is of a quality that is practically stable, day in and day out, yet oil and even coal have more or less sinusoidal symptoms that may not inspire confident security in those who should think before they buy.

Such factors as the foregoing are acknowledged facts which need to be properly presented. But, these facts must be proferred intelligently together with others of what are, perhaps, a more intangible nature, such as refinement of fuel, cleanliness, ease of control, lower insurance and a host of others. And therein lies the true need and worth of gas fuel salesmanship.

Speech may be silver and silence golden, but a deaf and dumb man never yet sold us anything but an inspiration of pity and charity. No gas company wishes such attributes showered upon them we feel sure. Hence, the need that incites a beckoning finger must be that we see to it that our salesmen are trained to reap for us the harvest in the profitable industrial field of this whole land.

Such men can and should be usefully employed also in making industrial surveys in every city; in tabulating facts relative to heat operations performed, whether by gas, coal, oil, electrical energy or any other fuel. Thus, by having such data available the gas company can watch the trend of other fuels such as oil so that even if by figures or rhetoric, local conditions are such that conversion to gas is not feasible immediately, it will be rendered all the easier when the psychological time arrives. That time will be when cost differentials become written upon the wall in language that none can deny.

Work of this kind is calling out to be performed in every locality. Here the arguments of personal contact, intelligent reasoning based upon education may prevail. There the cold facts of argument will bring light and understanding where darkness previously existed.

Some gas companies are adopting this attitude—others must, sooner or later.

Moving the Gas Plant

Under the above heading the Springfield Union on February 3 printed the following editorial. We leave any comment to the reader:

Undoubtedly there is a desire on the part of a great many altruistic persons that the Springfield Gas Light Company should seek a new location for its plant and, as we said in these columns yesterday, the explosion that wrecked the company's purifying plant with resultant loss of life, a long list of injured and far-reaching damage to property, has served to accentuate this desire. It has been understood for some time that the company would like a location more advantageous in some respects than that which it now has, and that when the occasion required the rebuilding of its plant it would erect it elsewhere. The explosion, however, does not of itself provide that occasion, since the plant, so far as the actual manufacture of gas is concerned, is practically intact and operating almost as if nothing had occurred. The operation, of course, is attended with great inconvenience, as must necessarily be the case where the equipment no longer enjoys the protection of four perfectly good walls and a roof. But these are something that can be quickly supplied and at no great cost, and in the mean time the production of gas to supply the city's needs will continue without interruption.

Although in this instance it may be the company's great good fortune that the nature of the explosion was not such as to render its plant inoperative, it is a fact worth noting that not once since the present management assumed control has the city been deprived of gas, which has come to be regarded as a necessity in practically every home. This of itself speaks well for the efforts of the company to provide service in any and all circumstances.

A gas plant with its monstrous and unlovely storage tanks, its smoke-belching chimneys, and its noisome odors, despite all the care that may be taken to minimize such evils, is naturally not an object of affection. One can not think of any neighborhood, or proximity to human habitation, where a gas plant is really welcome. Yet nobody would be willing to dispense with the product it supplies merely to enhance the beauties of the landscape, or free the atmosphere of the grime and unpleasant redolence that are the natural accompaniments of gas making.

No matter where the plant might be placed it would eventually be deprived of any advantage to itself and the community of the isolation it had sought. Most communities situated as is Springfield and its environs are prone to experience growth, and sometimes they seem rather indifferent as to the direction in which they extend themselves. If the gas plant could be pulled up and set down somewhere on the Agawam meadows it probably would not be very long before somebody was calling it a nuisance, or something equally as bad. Furthermore, if we would all like to get the plant away from us, are we not a bit ungenerous in asking West Springfield or some other neighbor to put up with it, and to regard it in the light of a desirable acquisition?

We are by no means trying to prevail on the gas company to stay here against its will; on the contrary, we wish it every encouragement in seeking a location that will not constantly remind us of its presence. But it is not the simple matter it may seem for the gas company to move, even if it knew where to go. A prime requisite for any location it might find otherwise convenient is adequate railroad facilities, particularly with respect to the New York, New Haven & Hartford Railroad, and we have not observed any inclination on the part of that railroad to rip up its tracks and lay them down on the other side of the river, or anywhere else. Nor is there yet evidence that in lieu of the facilities afforded by the New Haven road the Connecticut River has acquired that degree of navigation so long prayed for that would enable it to relieve the New Haven of its coal carrying obligations. But of course the New Haven is not the only road, for which we devoutly give thanks. All the coal and other freight necessary to the gas plant's operation might be supplied by some other railroad, and alongside it a new plant might be erected, but we are unable to think off-hand of any such location where the plant would be received with open arms.

On the whole, we are thankful that it is not our problem to move the gas company, although we are glad to assist in any moving venture it may have in contemplation. For the time being, even though we don't like the looks of gas plants in general nor enjoy in particular sniffing their odors, we shall be quite content, if not completely satisfied, so long as there is not a repetition of Thursday's unfortunate occurrence, and so long as the company contrives to keep the city supplied with its product, the art of producing which, although it may have its detestable features, is nevertheless an art not to be despised.

After all, it is somewhat difficult to rid the conveniences of our modern civilization from the nuisances that go along with them, in which respect the gas company is by no means unique. We have sometimes heard it said that street railways and even telephones have their exasperating and undesirable features.

GAS HEATERS IN DEMAND

Buffalo, N. Y.—Unusual sales of gas heaters during the past several weeks are reported by the Welsbach Gas Lamp Company, 204 Main Street. During the pre-Christmas selling season the entire stock of the local store was exhausted. Further supplies were received but sales have been so brisk in the first two months of the new year that several additional orders were placed. At one time the Buffalo sales office had waiting orders for between 200 and 300 heaters.

The Welsbach Company had an attractive exhibit at the convention of the New York State Hardware Dealers, held recently at Rochester. A booth has been engaged for the Better Homes Exposition to be held at the Broadway Auditorium, Buffalo, the week of March 17. One of the principal features of this exhibit will be a showing of the Callahan Folding Cooker. Demonstrators will show housewives the advantages of having a gas stove that can be folded up out of the way when not in use or used as a convenient work table through the enameled top cover which can be folded down over the stove when needed.

Syd's Scribblings

Gentle Springs

I never do the tango
Nor dance the foxes trot,
I'm green about the one-step
And of waltzes I know not.

But when it comes to baseball
I'm a howling, crazy thing.
That's why I am so happy
When the winter turns to spring.

* * *

Never Again

W. E. Steinwedell, of The Gas Machinery Co., Cleveland, is a golf fiend. Like most players he hears and tells a great many golf stories. His latest is one about Dick Webster. Dick went over to the club to play the course alone. He got a new caddie who didn't know him. Dick sliced his drive, landed in the rough, and took about ten strokes getting out. When he finally got on the fair way he topped a brassie shot and rolled in a pit. He slashed around for a while and then remarked to the caddie "Pretty rotten golf, isn't it?" The caddie said, "Yes, sir, it is pretty bad." "I guess I'm the worst player in the Club," said Dick. "I don't think so," said the caddie. "Every one says there's a man named Webster plays over here and he's the rottenest player in the whole United States."

* * *

Ten and Costs

O. P. Simler and F. J. Zinke, of The Hoffman Heater Co., Loraine, Ohio, attended a stag party a few nights ago. During the course of the evening the glasses clinked and each had a few.

Simler and Zinke started home in their auto, Simler driving. He hit it up to fifty miles an hour, turned curves on two wheels and grazed a few electric light poles.

"Hey," said Zinke. "Be careful there, old man or you'll wreck us."

"What?" said Simler, sticking his head out for a breath of air, "Why I thought you were driving."

It Pulls

The Subway has its line of green
The sky its line of blue,
But Col. Geo. D. Roper swears
By that line of purple hue.

* * *

Sadly Mistaken

Wm. Hutchinson, of the Sprague Meter Co., probably covers more territory than any man in the gas industry. Most of his life is spent on the railway trains. He says he was in a station not long ago and the porters were banging the trunks around in the usual way, while the owners mournfully looked on.

Suddenly the station master appeared and approaching one of the most vigorous baggage smashers shouted in stern tones: "Here, what do you mean by throwing those trunks around like that?"

The passengers pinched themselves to make sure they were not dreaming, but they returned to earth when the official added: "Can't you see you are making big dents in the concrete platforms?"

* * *

J. Haller, of Go-Ro, Inc., who is headquartering in Dallas, Texas, says that the citizens there are certainly blessed. They have so many gas wells they don't know what to do with them. The heating question, for them, is permanently settled.

Mr. Haller says he hasn't seen a coal cart in over a year and therefore he makes good time in his car because there are no traffic jams.

A janitor in Dallas has a cinch. All he does is to light a few gas jets and then go out and see a movie until it is time to collect his pay envelope.

"The gas company is far-sighted," says Mr. Haller. "Although the supply of natural gas seems to be inexhaustible, they are advocating care in its use, asking their users not to waste it, and advising consumers to buy no appliance that is not economical. If gas companies in the past had pursued this policy many cities today would still be using natural gas instead of wondering where they are going to get coal."

Tut-ankh-Amen

Its been the rule since days of yore
To bring the live ones to the fore,
The slow and crippled, halt and lame
Seldom rise to heights of fame.

Tut-ankh-Amen breaks every rule
That we have learned since days of school,
Though he's been dead three thousand years
His name in headlines now appears.

No wondrous book did he indite,
No famous battles did he fight,
No spoken word delivered he
That has gone down in history.

He built a tomb far under ground
Wherein his slumbers would be sound,
A place where he could rest in peace
When earthly cares for him would cease.

But fate to him was most unkind
That tomb of his they had to find
And now his couch, his clothes, his throne
No longer can be called his own.

They sell his pictures like hot cakes
His coat of arms a column makes.
His fame is known in vaudeville
And soon for him they'll name a pill.

Future science must be served,
So everything is well preserved.
Professors dream about a nich
While the Syndicate is getting rich.

Syd

Public Utilities Securities Market Report

Prices of Representative Gas Bonds

(Quotations furnished by The National City Company)

Company.		Maturity	Mar. 8, 1923. Bid	Asked
American Lt. & Trac. Co.	Five Year 6s	May 1, 1925	109	110
Brooklyn Union Gas Co.	First Consol. 5s	May 1, 1945	97	97¼
Columbia Gas & Elec. Co.	First 5s	May 1, 1927	95¾	96½
Consol. Gas, Elec. Lt. & Pr. Co. of Baltimore	First Ref. 7½s	Dec. 1, 1945	110	111
Consol. Gas, Elec. Lt. & Pr. Co.	General 4½s	Jan. 1, 1935	91	92
New Amsterdam Gas Co.	First Consol. 5s	May 1, 1948	81½	83½
Denver Gas & Elec. Co.	Gen. (now 1st) 5s	Jan. 1, 1949	94	96
Detroit City Gas Co.	Gold 6s	Jan. 1, 1947	100	100½
Equitable Illum. Gas Lt. Co. of Philadelphia	First 5s	Jan. 1, 1928	101½	103
Hudson County Gas Co.	First 5s	Nov. 1, 1949	94⅛	95¼
Laclede Gas Light Co.	Ref. & Ext. 5s	Apr. 1, 1934	94⅞	95¼
Louisville Gas & Elec. Co.	First & Ref. 7s	Called Dec. 1	100	—
Michigan Light Co.	First & Ref. 5s	Mar. 1, 1946	91	93
Milwaukee Gas Light Co.	First 4s	May 1, 1927	93¾	94½
Pacific Gas & Elec. Co.	Gen. & Ref. 5s	Jan. 1, 1942	91	91½
Pacific Gas & Elec. Co.	First & Ref. 7s	Dec. 1, 1940	106½	108
Cal. Gas & Elec. Corp.	Unif. & Ref. 5s	Nov. 1, 1937	96¾	97
Peoples' Gas Lt. & Coke Co.	Refunding 5s	Sept. 1, 1947	91¾	92⅝
Chicago Gas Lt. & Coke Co.	First 5s	July 1, 1937	95½	96¾
Portland Gas & Coke Co.	First & Ref. 5s	Jan. 1, 1940	89½	91
Seattle Lighting Co.	Refunding 5s	Oct. 1, 1949	83	85
Southern California Gas Co.	First 6s	Nov. 1, 1950	98	99½
Utica Gas & Electric Co.	Ref. & Ext. 5s	July 1, 1957	92	94
Washington Gas Light Co.	General 5s	Nov. 1, 1960	93½	94½
Western States Gas & Elec. Co. of California	First & Ref. 5s	June 1, 1941	90	91

Gas Earnings Grow

St. Paul, Minn.—Gross earnings of the St. Paul Gas Light Co. increased nearly $400,000 last year.

This is shown by a comparative statement of taxes paid by the company to the city as issued by J. P. Crowley, vice-president and general manager.

Mr. Crowley submitted to Commissioner J. M. Clancy a check for $227,659 as the 5 per cent gross earnings tax payable by the company for its business last year. The tax is based on a gross income of $4,553,190.

Last year the company paid a gross earnings tax of $208,698 on earnings totaling $4,163,396.

All told, the company will pay $535,187 in taxes this year, Mr. Crowley estimated. This sum is made up of $429,425 in taxes to the city and county and $105,762 taxes to the Federal Government.

The gross earnings of the company as reported by Mr. Crowley for 1922 were $2,182,902 in the gas business; $2,311,417 in the electric business; $57,668 in the steam business and $1,202 for residuals sold.

Gas Company Will Produce Coke

Manchester, N. H.—After October first next the Manchester Gas Company will manufacture 25,000 tons of high grade coke annually, according to the company officials. Had the company been prepared to produce coke in such quantities the past winter Manchester's distressing fuel situation would have been greatly relieved and suffering alleviated.

Walter G. Africa, manager and treasurer of the Manchester Gas Company appeared personally before the Public Service Commission at Concord recently as the representative of the company in behalf of a petition to increase the capital stock of the company in the sum of $600,000. Of this amount, $300,000 is listed as preferred stock, and $300,000 as common stock.

Reason for asking the commission for authority to increase its capital stock $600,000, are set forth in an itemized statement presented

Pawtucket Co. Engage Stone and Webster

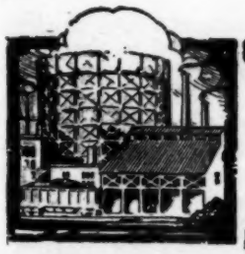
The Pawtucket (R. I.) Gas Company has engaged Stone & Webster, Inc., to design and construct a plant extension of 4,000,000 cu. ft. per day capacity.

The addition will consist of one 11-ft. carburetted gas set, a waste heat boiler and apparatus for automatic control. All the construction features of the new Stone & Webster heavy oil process will be incorporated in the set, which will be housed in an extension to the existing generator building.

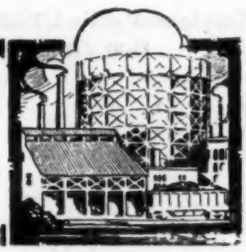
In addition to the new set and auxiliaries the contract calls for an overhead coke bunker of 60 tons capacity, a traveling weigh larry, a remodeling of the circulating system and extensions to the condensing and purification facilities.

Nassau & Suffolk Lighting Co. Adds New Set

Among the recent contracts taken by The U. G. I. Contracting Company, of Philadelphia, is that of a 11-foot top set for the Nassau & Suffolk Lighting Company to be installed at its plant in Hempstead, Long Island. The set will be equipped with The U. G. I. Thermo Automatic Control.



NEWS OF THE GAS INDUSTRY



Wisconsin Association Meets This Month

Milwaukee, Wisc.—For the first time in the history of Wisconsin, owners and representatives of all branches of the public utility industry will hold their conferences at the same time. These meetings will include telephone, gas, electric light and power, and street railway men from practically every city in the state.

They will meet in convention at Milwaukee, March 21, 22 and 23 The Wisconsin Utilities Association, which includes the gas, electric and street railways companies will hold its meetings March 22 and 23 at the Hotel Pfister. The Wisconsin State Telephone Association will hold its sessions at the Wisconsin Hotel, March 21, 22 and 23. A joint session of both associations will be conducted at the Pfister on the morning of March 23.

This will be the most representative meeting of utility men ever held in Wisconsin and is expected to bring nearly 1,000 utility men and their wives to Milwaukee.

The program for the joint session will include reports from J. P. Pulliam, Milwaukee, president of the Wisconsin Utilities Association; Arthur Taylor, Rhinelander, president of the Telephone Association; John A. Pratt, Madison, secretary; Bruno Rahn, Milwaukee, chairman gas section; C. R. Phenicie, Green Bay, chairman electric section; B. W. Arnold, Oshkosh, chairman electric railway section; A. E. Gerg, Fond du Lac, Sales section, and C. E. Kohlhepp, Milwaukee, accounting section.

James P. Barnes, Louisville, Ky. and John B. Malig, New Haven Ind., will make the principal addresses. Group luncheons of executives, engineers, accountants, superintendents, advertising and sales men will be held at noon. Several other speakers whose acceptances have not as yet been received, will be on the general session program.

Chairman Bruno Rahn announced the following program for the gas section:

"Development of Rotary Displacement Meters."—Erwin C. Brenner, Milwaukee Gas Light Co.

"Wet Purification"—H. R. Broker, Wisconsin Gas & Electric Co., Racine.

"Naphthaline Removal by Extreme Gradual Cooling"—O. L. Kowalke and H. C. Hubbard, University of Wisconsin.

"Development of Retort House Governors"—W. E. Kemen, Milwaukee Gas Light Co.

"Single Pipe Burner, Application to Industrial Appliances"—Albert Schuetz, Milwaukee Gas Light Co.

"Mixing Illinois and Eastern Coal for Retort Coal Carbonization"—W. C. Butterworth, Platteville Gas Co.

Discussion on these papers will be led by A. F. Davey, Sheboygan; S. B. Sherman, Racine; Louis Stein, Eau Claire; R. B. Meredith, Oshkosh; I. F. Wortendyke, Janesville; A. H. Sikes, Stevens Point; M. H. Frank, Fond du Lac and R. G. Krumrey, Beloit.

Gas Company Awards Prizes to Its Drivers

Lynn, Mass.—Thirteen automobile drivers in the employ of the Lynn Gas & Electric Company were awarded prizes for reduction on the operating costs on their cars during 1922, at a dinner attended by more than 175 employees and executives of the company in the rooms of the Employees' Association, 168 Broad Street.

Treasurer Eugene B. Fraser made the awards to the following: Shirley A. Mace, $50 having a reduction of 46 per cent; Alden H. Waitt and Percy Pollard, $25, with a reduction of 44.8 per cent; James J. Cafferty, $15, reduction of 42.8 per cent; Benjamin S. Courtis, $10 with reduction of 39.8 per cent. Additional prizes of $5 were given those who made a saving of 30 per cent or better over their record for 1921. They were Harold M. Lamper, Edward Jones, James A. McDermott, Thomas F. McDonald and Frederick E. Morriss, Roderick E. Roberts, Leland E. Sawyer and Walter G. Wallace.

Lewis E. MacBrayne, general manager of the Massachusetts Safety Council, brought home the necessity of observing the "Safety First" slogan, both at work and in daily life.

Supper served by a caterer was furnished by the company, which was represented by Henry K. Morrison, general manager; Eugene B. Fraser, treasurer; Frank E. Chase, manager of electrical department and Francis E. Drake, manager of the gas department, who also acted as toastmaster.

Seated at the head table with the officials was Henry I. Laumann, vice-president of the Employees' Association; Lewis E. MacBrayne the speaker; Harold M. Lamper, chairman of the Safety Committee and J. Frank Dubois, former head of the electrical department and a guest of the management. Henry I. Laumann acted as master of ceremonies owing to the absence of the president, John Curtin, who is confined to his home with an injured back.

Gas Street Lighting

During the month of January additional Welsbach Gas Street Lamps were installed at the following places:

Kenmore, N. Y.; Montclair, N. J.; Haverhill, Mass.; Gloucester Township, N. J.; St. Louis, Mo.; Camden, N. J.; Baltimore, Md.; Washington, D. C.; Granite, Okla.; Brownwood, Tex.; Glen Ridge, N. J.; So. Orange, N. J.; Worcester Mass.; San Francisco, Cal.; Mt. Vernon, N. Y.; Riverton, N. J.; Cleveland, Ohio; Limestone, N. Y.; Coleman, Tex.

Maryland Public Utilities Association Organized

Maryland public utility companies have taken a step forward toward efficiency in conducting their operations and in giving the public the best service they can, by organizing the Maryland Public Utilities Association. A conference was held in Baltimore, Md., February 20 and 21 between representatives of the various public utility companies of the state and members of the Maryland Public Service Commission in order to discuss public relations, standardization of operating practice and various technical subjects connected with public utility service.

William Milnes Maloy, Chairman of the Maryland Public Service Commission, arranged the conference in conjunction with H. C. Wolf, the Commission's chief engineer, and upon the second day of the conference, the Maryland Public Utilities Association was permanently organized. Emory L. Coblentz, chairman of the board of directors of the Potomac Service Company, of Frederick, Md., and State Director of Welfare, was named its president; Charles O. Culver, of the Eastern Shore Gas and Electric Company, Salisbury, Md., vice-president; H. T. Connolly, superintendent Annapolis Public Utilities Company, secretary and treasurer. The board of directors consists of the following six members: Joseph W. Lynch, Hagerstown, Md.; Luther D. Shank, Centreville; A. N. Tawes, Crisfield; George W. Woolford, Cambridge, and T. E. Bullock and Louis H. Palmer, of Baltimore.

Several interesting addresses pertaining to public utilities as a whole as well as various phases of their operations were delivered at the first meeting.—Commissioner J. Frank Harper, made the opening address, saying in part:

"The good will of the public must be secured. Oftentimes the man in the street does not know what our problems are and what we are trying to do. Many of our citizens have but slight knowledge of the scope of the duties of the Public Service Commission, although that body was created in 1910. We have even been asked to fix the price of milk or regulate the sale of kosher meat. Only last week I heard a man who objected to the two-car stop refer to it as one of the fool ideas of that crazy Public Service Commission.

"One of the striking events of the last decade was the development of public utilities in parts of the State removed from the great centers of population. More than anything else, the extension of the telephone and electric light to rural communities is helping to check the unwholesome concentration of population in the big cities, because it has made life on the farm and in the small town more attractive."

Following Commissioner Harper, J. Hampton Baumgartner, president of the Baumgartner Advertising-Publicity Company, who for 15 years prior to establishing an advertising agency was conducting public relations activities for the Baltimore and Ohio Railroad and the National Association of Owners of Railroad Securities addressed the conference.

Mr. Baumgartner particularly emphasized the importance of good will, its influence and value in corporation existence. Especially, in regard to public utilities, he said, it was one of the chief factors in establishing and maintaining harmonious relations between the company and the public. He showed contrasts between companies that had taken steps to insure the public's good will as against those companies that had not realized the public's part in the operation of their properties. Mr. Baumgartner referred to the more than $300,000,000 capital investment in public utilities in the State of Maryland, saying that he believed such capital should be protected first of all with the good will of its patrons to insure its prosperity. As to the agitation for Government, state or municipal ownership of public utility companies, Mr. Baumgartner declared that the best public ownership of these properties is the widespread purchase of their securities by the public. The speaker suggested that the public utilities should take the public into their confidence, if necessary, educate the public on their problems of management and operation.

R. F. Bonsal, manager of the service department of the Baltimore Consolidated Gas, Electric Light and Power Company, was the next speaker, his subject being "Handling Complaints."

The afternoon session of the first day was devoted to the electric, gas and water sections of public utilities. In connection with electric topics, C. E. Wearn, of the Westinghouse Electric and Manufacturing Company, spoke on "Prime Movers." "Boiler Room Kinks" were explained by William Krumbine, superintendent, Easton, (Md.) Municipal Plant, and C. O. Culver, general superintendent, Eastern Shore Gas and Electric Company, chose for his subject "The Making of a Rate Schedule."

In "Plant Operation," W. R. Rhodes, division manager, Pennsylvania Power and Light Company, gave a detailed thesis on the power behind the "power."

In the gas section discussion, H. T. Connolly, superintendent, Annapolis Public Utility Companies, gave an interesting dissertation on the installation of mains, meters and services. The subject of distribution of high pressure enabled John W. Downing, of the Salisbury Citizens Gas Company, and R. G. Ankham, of the Crisfield Light and Power Company, to give the conference the benefit of their experience. The discussions of gas problems were brought to a close with a talk by C. W. Herbst, superintendent of fitters of the Consolidated Gas, Electric Light and Power Company, Baltimore, on appliance installation and adjustment.

At the banquet, which was part of the conference, the principal speakers were Judge Warren R. Voorhis, vice-president American Water Works and Electric Company, New York, and State Senator Orlando Harrison, of Berlin, Md. Judge Voorhis laid stress upon the great responsibility which rests upon the public utility companies in coping with the present era of disorder and unrest. He stated there could be no permanent cure for this situation unless ignorance, superstition, provincialism and local bias were abolished. The Judge declared that through travel, communication and health projects, the public utilities held a foremost and unique position to educate the public.

Urging co-operation with the farmers of the State, Senator Harrison said that light, heat and power today are economic necessities in modern agriculture. He further declared that the farmers are will-

ing to co-operate in bringing these utilities to their farms, their value to them being even greater than to residents of the cities.

While in Baltimore, delegates to the conference inspected the local gas, electric and water plants. Upon the invitation of the Rotary Club, of Annapolis, they visited the State Capital on Thursday, the 22nd, before departing for their homes.

Two Companies Order Barring-Down Machine

The U. G. I. Contracting Company, of Philadelphia, has lately received orders for its new Barring-Down Machine from the Lynn (Mass.) Gas & Electric Company and the Hartford (Conn.) Gas Light Company.

A. A. Crawford Dead

Bradford, Pa.—Alphonze A. Crawford, aged 69 years, general superintendent of the Manufacturers' Gas Company, one of Bradford's oldest and best known citizens, died at his home, 43 Congress Street. He had been suffering from heart trouble. He had been in the employ of the gas company 41 years. Mr. Crawford was a member of the Knights of the Maccabees and of all the branches of the Masonic orders. He was born in Brant Center, N. Y., and was at one time a resident of Pittsburgh, Pa., coming from the latter place to this city about 45 years ago.

Company Gives Information to Shareholders

The Consolidated Gas Electric Light and Power Company has done a notable thing in publishing for the benefit of its shareholders a Year Book, which gives in A-B-C form all the information stockholders want bearing upon the condition of their property. The Year Book, which is edited by Arthur W. Hawks, Jr., fills long-felt want, and other corporations could emulate it with profit to themselves.

The average annual report is unintelligible to the rank and file of stockholders. They study the figures sometimes, and when they finish they know about as much of the condition of the property the report deals with as they did before. This confusion is obviated in the Gas and Electric Year Book.

There are nearly 7,000 residents of Baltimore and vicinity who own nearly a majority of the shares of stock in the company. Over a thousand of these are employees of the corporation, and by far the greater number own from 1 to 10 shares. They have just as much right to know the true condition of the Company as have the men who sit on the board of directors or those who own big blocks of the utility's stock. The management recognizes this right; hence the publication of the Year Book.

It was in 1910 when J. E. Aldred and associates acquired control of the Gas and Electric Company. One of Mr. Aldred's first moves was to win the confidence of the public and he set out to accomplish this by placing his cards on the table face up. It was not an easy task to change the view of the public toward corporations. The people were suspicious of everything which bore the stamp "corporation," and when the campaign was launched to "educate the public" to the fact that there was such a thing as a corporation playing fair it was met with sneers on the part of the unthinking.

Gradually the truth began to dawn upon the people and today probably no utility corporation in the United States has succeeded in establishing stronger relations with the people it serves than has the Gas and Electric Company. Customer ownership of the Gas & Electric Company also was hit upon by Mr. Aldred and his associates in the management of the Company as a means of strengthening the good relations between the Company and the public, and the fact that nearly 7,000 patrons of the Company are enrolled as stockholders is the answer whether the plan has been successful—"Baltimore News."

Atlantic City Gas Co. Adding Hydraulic Operating Mechanism.

A contract was recently awarded by the Atlantic City Gas Company to The U. G. I. Contracting Company, of Philadelphia, for remodeling the apparatus at the Atlantic City plant by the addition of hydraulic operating mechanism. With the addition of this mechanism, the manufacturing efficiency of the Atlantic City apparatus will be greatly increased.

New Britain Gas Light Co. Buys Land.

New Britain, Conn.—Acquisition of a tract of land for future development purposes was announced at a recent meeting of the board of directors of the New Britain Gas Light Company.

The land was bought from the J. B. Thompson estate, and consists of 23 acres. It is located in the eastern section of the city. It extends from Kelsey Street as far north as the plant of the Cremo Brewery Company.

This land will be particularly valuable later because its entire east boundary lies along the tracks of the New Haven road, on the main line.

The directors of the company realize that the time is approaching when the present plant will need to be moved from the vicinity of Cherry Street.

St. Paul Co. Adds to Equipment

The Gas Machinery Co., of Cleveland, Ohio, has been awarded contract to install one of its automatic water gas controls in the works of the St. Paul Gas Light Company, St. Paul, Minn.

This control will also be complete with the necessary hydraulically operated valves all for two 11-foot water gas sets.

This will enable the Gas Company to operate on shorter blow and run periods, thereby gradually approaching the ideal condition of continuous operation and having all of the various operations take place at the exact moment desired, which is impossible with hand operation, looking at a clock or other similar timing devices.

Adding Sales Office

Walter L. Frederick, of Frederick, Traugott and Allen, who have sales offices in Philadelphia and Baltimore, recently moved to Pittsburgh, where he will open another office. This aggressive sales organization represents the following concerns:

Bryant Heater and Mfg. Co. Cleveland, Ohio; Gehnrich Indirect Heat Oven Co., Long Island City; Improved Appliance Co., Brooklyn, N. Y.; Robertshaw Thermostat Co., Youngwood, Pa.

New York Utilities Sell Customers Securities

Public ownership of utilities in New York State as contrasted with government ownership, has received a strong impetus in the last few months, according to the New York State Committee on Public Utility Information. In addition to the insurance companies, banks, trust companies and other institutions which are regular heavy investors in utility securities, there have been enlisted among the owners of gas and electric companies about 75,000 ordinary citizens, customers of those companies, who have seen in those securities good and safe investments for their savings.

Customer-ownership, as this method of direct distribution of securities among the people who use the service of the utilities has come to be known, is rapidly becoming an important element in the financing of public service companies. The most notable example of it in this State is the sale, just completed, of $15,000,000 of 6 per cent preferred stock of the Consolidated Gas Company of New York to its customers and employees. Applications for more than three times the total issue were received necessitating a cutting down of the larger applications. Allotments of the stock have been made to 57,283 subscribers, of whom no one will receive more than 20 shares. More than 30,000 individuals, who applied for from one to six shares will receive their allotment in full.

Many other companies around the State have sold their securities directly to their customers. The Adirondack Power and Light Corporation, serving more than thirty communities, a few months ago put out an issue of preferred stock which was purchased by nearly 3,000 residents of the territory served by this company. It is now preparing to sell in the same manner another issue of preferred stock amounting to $500,000.

The United Hudson Electric Corporation of Poughkeepsie during the summer and fall sold nearly $3,000,000 of bonds to some 4,500 of its customers in the Hudson Valley.

Other gas and electric companies which have sold securities widely in customer-ownership movements are the Rochester Gas and Electric Corporation, the Syracuse Lighting Company, the Northern New York Utilities, Inc. of Watertown, the New York State Gas and Electric Company of Ithaca, the Utica Gas and Electric Company and the Genesee Light and Power Company of Batavia.

Michigan Gas Co. Managers Hold Meeting.

Battle Creek, Mich.—Managers of about 30 gas companies, supplying Michigan cities, meeting at the Post Tavern are optimistic concerning prospects for the present year, as affected by labor costs, the fuel and freight situations, and intimate the period may witness general, though possibly slight, reductions in gas rates.

The delegates, all of them members of the Michigan Gas Association, meet two or three times a year to discuss problems which arise in their industry and this meeting is one of a series.

The members unreservedly endorsed a consistent, nation-wide program of advertising which is being worked out under the direction of public utilities interests and which is planned to foster good will and which will bring to consumers a better realization of the problems which confront the companies.

Fred W. Seymour, manager of the Battle Creek Gas Company and president of the State Association presided over the morning and afternoon sessions.

New Haven Company Holds Annual Meeting

New Haven, Conn.—The New Haven Gas Light Company will pay $100,000 more next year for its coal than it did this year, as a result of the strike of the coal miners last summer and fall, it is officially announced by the company.

Plans have been made to construct a new boiler house with apparatus, at an estimated cost of $340,000, to be located in the East Chapel street property in the open space between the present water gas plant and power plant and the men's recreation building.

These statements are contained in the annual report to the stockholders of the company, presented February 13 by Charles H. Nettleton, president. Mr. Nettleton particularly called attention to the situation that the company will face next year. He showed that as a result of the coal strike, gas coal on regular contracts for 1923 will cost about $1 and upwards more than it did in 1922 and with the estimated consumption of 90,000 tons of coal for the year the additional cost to the company will be in the neighborhood of $100,000.

It is hoped to have the new building completed by the end of this year, and the work will be begun within the next six or eight weeks, delay being caused at present by the necessity for finishing up details of plans. The board of directors has already authorized the new building which will be of the latest design, with all modern improvements for the mechanical handling of fuel and ashes, mechanical stokers and furnaces especially designed for the most economical use of coke breeze and anthracite dust.

The year's profits from operation, according to the president's report, amounted to $556,419.98. The company used and sold 1,881,212,600 cubic feet of gas, a slight decrease over the amount used last year. The new business department of the company sold 4,174 appliances and did a business of $203,266.21, which is an increase over last year.

All of the directors were reelected to act another year: Geo. D. Watrous, Charles H. Nettleton, A. Heaton Robertson, Winston J. Trowbridge, Frederick F. Brewster, Eli Whitney, James S. Hemingway, H. Stuart Hotchkiss, Jas. T. Moran.

Los Angeles Gas and Electric Corp. Increase Earnings.

Los Angeles, Cal.—The comparative earnings statement of the Los Angeles Gas and Electric Corporation shows some very interesting comparisons as analyzed by Bond and Goodwyn and Tucker, Inc.

For the year ended December 31, 1922, gross earnings amounted to $11,915,365 as compared with $9,733,817 for the previous year, an increase of $2,181,548, whereas operating expenses and taxes increased only $661,846, leaving net earnings of $3,849,929 for the year ended December 31, 1922, as compared with $2,330,227 for the previous year.

Americanization Work Amongst Employees Proves Successful

Americanization work among employees of the public utilities companies under the management of Samuel Insull has established a record believed to be unique among the industries of the country.

For the last eighteen months, intensive Americanization effort has been carried on among employees of the six public service companies—The Peoples Gas Light & Coke Company, Commonwealth Edison Company, Chicago Elevated Railroads, Chicago North Shore and Milwaukee Railroad, Middle West Utilities Company and the Public Service Company of Northern Illinois—whose operations extend over fifteen states, with a result that today practically all employees are either American citizens or have declared their intentions of becoming such and have taken out their first naturalization papers.

A report just made to Mr. Insull by the joint committee in charge of the Americanization work shows that on January 1, the aggregate number of employees on the payrolls of the combined companies was 24,214, and of this number, 22,270, or 91.97 per cent were American citizens.

Those who were in possession of their first papers and who will gain the full rights of citizenship within the next few months, numbered 1,893, or 7.82 per cent.

Only 51, or 21/100 of 1 per cent were not citizens or had not taken out first papers. Some of those who had not yet declared their intentions of becoming citizens expected to do so within a few weeks.

The Peoples Gas Light & Coke Company, of Chicago, which was the first of the Insull companies to take up the matter of citizenship, received first honors in Americanization work, every one of its employees being either a citizen or in possession of first naturalization papers.

The other companies under Mr. Insull's management, operating in Chicago, have a citizenship record almost as perfect. Only two employees of the Chicago Elevated Railroads were not full-fledged voters or were without their first papers on the first of the year, and they were planning to take the first step toward becoming citizens in the near future.

Only eleven employees of the Commonwealth Edison Company were non-citizens and nine of them were not eligible to citizenship.

Of the companies operating outside of Chicago, the Middle West Utilities Company had only four employees who had no citizenship papers. The Public Service Company of Northern Illinois, which operates in the district directly adjacent to Chicago, had only two non-citizens. The Chicago, North Shore and Milwaukee Railroad had 32, and of this number, 20 expected to apply for their first papers. The non-citizens among the employees of the last-named company were mostly track laborers.

The report showed that out of 6,631 employees of the Commonwealth Edison Company on January 1, 5,774, or 87.08 per cent were citizens, and 846, or 12.76 per cent were holders of their first papers. The latter were almost wholly unskilled labor. Of the 11 who were non-citizens, two were minors and orphans who will apply for their first papers when 18 years of age, one was an East Indian, a student at the University of Chicago, who expected to return to India within two years; seven were Filipinos attending school in Chicago who expect to return to the Philippines within four or five years, and one a Japanese student. The last nine were not eligible to citizenship.

The Middle West Utilities Company is more completely Americanized than any of the others, except the Peoples Gas Company, 4,702 of its employees being citizens, only one having his first papers, and only four were non-citizens.

The Public Service Company of Northern Illinois had 2,059, or 95.76 per cent citizens, 90 employees had their first papers, and only two were non-citizens. Both of these said they expected to apply for their first papers soon.

The Peoples Gas Light and Coke Company, which is 100 per cent Americanized, had 3,398 full-fledged citizens among its employees and 490 who had declared their intention of becoming such by taking out their first papers.

Back of these interesting statistics is a record of intensive Americanization work, which in reality, to a large extent, was education of the foreign-born employees to speak, read and write the English language, do simple problems in arithmetic, and as the work advanced its scope was broadened to include instruction in the science of government and the meaning of American citizenship.

The Peoples Gas Light and Coke Company, which was the first of the Insull companies in this field of endeavor, began early in the summer of 1921. Its Industrial Relations Department made a survey of the entire working force to find out who were not citizens, and why, and then inaugurated systematic Americanization work. In the following April (1922) when Anton Novakowski applied for first papers, every employee of the company was either a citizen or had first papers and was only waiting for the lapse of time required by law to become a full citizen. Systematic "follow up" sees to it that the citizenship record is maintained.

The most difficult of the situations encountered in this Americanization program fell to the lot of the Chicago, North Shore and Milwaukee Railroad. Trackmen employed by that company were largely aliens, as is usually the case with workers doing this class of labor. Altogether, 15 nationalities were represented, with Croatians and Italians predominating. At the time the work was undertaken, few of them could read or speak the English language, and some of them cannot even read or write their native language. They lived mostly in camps located at various points along the right-of-way, so that making them American citizens presented a problem altogether different from that of any other company in the group.

As usual, these men were hired through labor agencies. After a brief survey of the situation it became apparent that little in the way of improvement could be accomplished by the customary practice of working through foremen and labor agencies. It was a difficult problem to carry on Americanization work under these conditions. It was not a simple proposition of convincing employees that they should become American citizens, but was first a question

of educating them to make them fit for citizenship by instructing them in the English language.

The first step was orders from Britton I. Budd, president of the company, discontinuing the practice of keeping labor in boarding camps maintained by contractors and the establishment of a system of company camps constructed and maintained to attract the better class of men and keep them contented. The commissary was improved, baths were provided, close attention given to cleanliness about the camp, and finally a Y. M. C. A. secretary was employed to look after their recreation.

After a further study of the situation it was decided that although this work was a step in the right direction, a systematic course of education should be established to assist these foreign-born employees in becoming citizens. The magnitude of this task will be more readily comprehended when it is understood that the first survey showed that 90 per cent of the men were not citizens; over 30 per cent of them could not speak English: 75 per cent could not read it, and 25 per cent could not read or write their own language. The ages of the men ranged from 18 to 60 years, and averaged 36 years.

The company engaged an experienced instructor to direct the work and he was assisted by men in the organization. Schools were fitted up in buildings belonging to the company at various locations along the line. Classes were held on specified evenings at different locations most convenient to the men.

The first step was instruction in English. Later as the work progressed, English was supplemented with simple courses of study in grammar, arithmetic and government. The instruction was associated with the work the men were actually doing. For example in arithmetic a problem would be given as follows: If 350 ties are unloaded for renewals in track and 85 ties have been renewed, how many ties are left? This system of instruction promoted interest and enlarged upon the value of the work to the men. Motion pictures were used often as a method of keeping the study from getting tiresome.

Beginning late in 1920, two hourly classes were held on two evenings of each week, excepting for two months during the summer, when the program was confined to pictures and recreational pastimes.

As an indication of the interest taken in the work by some, one man over 40 years of age, who, though many years in this country, had not learned the English language, said to an interpreter at the close of the first lesson: "I would rather learn English than have $1,000."

After several months of this intensive edcuational work a certain day was set as "first paper day," upon which all foreign employees who had not yet declared their intentions of becoming American citizens could do so. Arrangements were made to receive the applicants at the court houses in Waukegan, Ill., and Kenosha, Racine and Milwaukee, Wisc., and the day was made a gala occasion. As a result of this, the number of employees among the trackmen who were not citizens dropped from 90 per cent to 27 per cent.

The educational work proved such a success that it is being continued. A school has been started for foremen and all who desire to become foremen. Safety classes are also held and accidents have been reduced to a minimum as a result of education along this line.

Educational work somewhat similar in character has been carried on by The Peoples Gas Light and Coke Company and the Commonwealth Edison Company of Chicago. The co-operation of the Chicago Association of Commerce and the Chicago Board of Education was obtained in this work.

The Peoples Gas Company now has one school in Americanization work at the South Division shops and others are planned. The Edison Company for some time has been conducting classes in citizenship in the Fisk Street Station and in a public school building on the west side.

In the cases of the other companies, the work done has been more of an individual character, owing to the few non-citizens and the widely scattered locations of some of the properties.

How Tax-exemption Hits the Average Taxpayer

The man who doesn't bother to think much about tax-exempt securities is one of the great army of 7,000,000, whose average earning is $50 a week.

Let him read an imaginary conversation written by Garet Garrett, who has a way of putting financial facts in attractive and understandable form. It is from the Saturday Evening Post. A dialogue between the 7,000,000 and Uncle Sam:

"What was your income last year?"

"Fifty dollars a week."

"How did you get it?"

"Earned it."

"Go over there and pay the Federal tax collector two hundred and sixty-three millions."

The sum increases each year. It is an alarming fact, not in itself but in relation to another fact. For there is another type of conversation held each year between the United States Government and a small but growing group of persons, and it goes like this.

"What was your income last year?"

"A thousand dollars a week."

"How did you get is?"

"From bonds which under the Constitution of the United States cannot be taxed."

"The collector will pass you out. There is nothing to pay."

Gas Co. to Ask Extension of $1 Rate to July 1

St. Paul, Minn.—A petition to continue the $1 gas rate from April 1 to July 1 has been filed with Commissioner J. H. McDonald by J. P. Crowley, vice-president of the St. Paul Gas Light Co.

The petition is based on the letter sent to Mr. McDonald some time ago by Dr. E. W. Bemis, city utility expert, that his report on the investigation of the company's earnings will not be ready in time for the council to take up the matter of a permanent rate by April 1.

At the time he gave Dr. Bemis' statement Mr. McDonald said he would not consider an extension, at least until a formal request was made by the gas company.

The petition is accompanied with a letter written to the gas company by the Minnesota By-Products Coke Co., in which the latter concern maintains it has suffered operating losses even since its price for gas sold the gas company was increased from 30 to 42½ cents per 1,000 cubic feet.

The $1 gas rate was voted in by the city council last September to be effective until April 1. By that time it was assumed that a report on the adequacy of the rate would be ready.